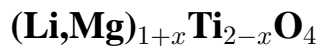


Abstract Submitted to the
International Conference on Strongly Correlated Electron Systems
University of Michigan, Ann Arbor
August 6-10, 2001

Phonon density of states in superconducting oxide spinel



M.M. Sinha

*Department of Physics, Sant Longowal Institute of Engineering and Technology, Longowal,
Sangrur (Punjab) 148106, India*

The phonon density of states of the spinel phases $\text{Li}_{1+x}\text{Ti}_{2-x}\text{O}_4$ ($x = 0.33$) and $\text{Li}_{1-y}\text{Mg}_y\text{Ti}_2\text{O}_4$ ($y = 0.1, 0.3$) (space group $\text{Fd}3\text{m}$) have been calculated by applying Blackman sampling method. The calculated results are compared with experimental data. The effect of Mg^{2+} substitution for Li^+ in LiTi_2O_4 on phonon density of states are also studied and discussed.